



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,362	11/14/2001	Jun Akiyama	70904 (56693)	5592
21874	7590	08/21/2006	EXAMINER	
EDWARDS & ANGELL, LLP P.O. BOX 55874 BOSTON, MA 02205			POLTORAK, PIOTR	
			ART UNIT	PAPER NUMBER
			2134	

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/992,362

Applicant(s)

AKIYAMA, JUN

Examiner

Peter Poltorak

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-14 and 16-24 is/are pending in the application.
- 4a) Of the above claim(s) 17-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-14 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/21/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/06/2006 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

Response to Amendment

3. Applicant's amendments overcame 35 USC § 112 rejections that as a result have been withdrawn.
4. The newly introduced limitation into claims 1 and 16 are addressed below.
5. Claims 1-9, 11-14 and 16 have been examined.

Claim Rejections - 35 USC § 112

6. Claims 1-9, 11-14 and 16 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. It is not clear whether the new limitation in claims 1-2, 11 and 16: "the encryption information is different for recording onto different disks" should be treated as though each disk has different encryption information recorded or whether applicant

intended some other meaning for this limitation. For purposes of further examination the phrase is treated as if the recited interpretation is valid.

Claim Rejections - 35 USC § 103

7. Claims 1-9, 11-14 and 16 are rejected under 35 U.S.C. 103(a) as being obvious over *Tosaki et al.* (WO 00/07182) as evidenced by *U.S. Patent No. 6633534 B1* in view of *Oshima et al.* (U.S. Patent No. 6081785).

As per claims 1-2 *Tosaki et al.* teach a disk (Fig. 1B) that comprises data area 5 (*first format data recording region*) and lead area 4 (*second format data recording region*). *Tosaki et al.* teach CSS key area disposed in the lead area, which stores key information for deciphering the requisite information, which has been ciphered and recorded in the data area (*col.3 lines 28-62*). The requisite information is deciphered using the key information and reproduced (*col. 4 lines 3-6*).

Tosaki et al. teach CSS key area disposed in the lead area, which stores key information for deciphering the requisite information, which has been ciphered and recorded in the data area (*col.3 lines 28-62*). The requisite information is deciphered using the key information and reproduced (*col. 4 lines 3-6*).

This reads on “encrypted information in the data recording region in the first format and reproducing information by reading out the encrypted information recorded in the data recording region in the first format, and by decrypting the encrypted information using the encryption information which was reproduced from the encryption data recording region in the recording medium in the second format” and on “reproducing information by reading out the encrypted information recorded in the

data recording region in the first format, and by decrypting the encrypted information using the encryption information which was reproduced from the encryption data recording region in the recording medium in the second format”.

The lead-in area comprises a prepit section (*col. 3 lines 1-2*) that stores key information (*col. 2 lines 48-50*). Tosaki discloses that the recording density (line recording density, track density) is lower in the prepit section, in order to improve the quality of the signal at the prepit section.

This reads on “recording information in the data recording region in the first format, which differs from the second format in an identical kind of recording system as the encryption data recording region” and on “the first format and the second format differing from each other in at least one of recording density, error correcting system, and defect management system”.

8. *Tosaki et al.* do not teach that the encryption information is different for recording onto different disks.

However, in the commercial disk production there are a plurality of manufactures and it would have been rather impractical to insist that each manufacturer uses the same encryption information. In fact such a requirement could prove rather costly. Thus, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to allow different encryption information for recording onto different disks as disclosed by *Oshma et al.* for example (*Abstract*). One of ordinary skill in the art would have been motivated to perform such a modification in order to

lower costs and allow better flexibility in commercial implementation of *Tosaki's* invention.

9. As per claim 3 it is inherent that recording regions are blank before information is recorded.

10. As per claim 16 *Tosaki et al.* teach that the lead area in addition to prepit section comprise a groove (*col. 3 lines 1-3*).

11. As per claim 11 *Tosaki et al.* teach *Tosaki et al.*'s invention is directed towards a write-once DVD (*Tosaki et al., Abstract*). However, it is old and well-known practice to use DVDs where information could be written multiple times. One of ordinary skill in the art at the time of applicant's invention would have been motivated to employ such a DVD in order to add additional data into the DVD. Also, it is implicit that recording means for recording information on the recording medium should allow the recording only in the first format and not the second format as *Tosaki et al.* teach that the second format region holds information that prevent unauthorized copying (*Tosaki et al., Abstract*).

12. The limitations of claim 4-5 and 12-13 are implicit. Although music, movies and other data (data stored in the data region that is in the first format) come in various quality (e.g. various compression techniques are used to minimize space requirement) while the second format data that is used to decipher the first format data and as a result it must be in perfect reproduction quality.

13. As per claim 6 it is inherent that plurality of information pieces are recorded in a circumferential direction on a disk and it is old and well-known practice to use more

than one piece of information for the encryption process for motivation of benefit of increased security.

14. As per claims 9 and 14 *Tosaki et al.*'s invention employs two different areas with data in different formats. Data in different formats modulate differently (because they were modulated differently at the recording time) and as a result when the DVD is read, the player or a computer that reads it must have two different systems to deal with the various formats.

15. As per claims 7-8 *Tosaki et al.* teach recording the encryption data recording region as discussed above. *Tosaki et al.* do not teach recording identification information for identifying each recording medium in the encryption data recording region

16. *Oshima et al.* teach unique recording identification information for identifying each recording medium used in the encryption/decryption process (*Oshima et al.*, *Abstract*).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include identification information for identifying a recording medium in the encryption data recording region as taught by *Oshim et al* into *Tosaki et al.*'s invention. One of ordinary skill in the art at the time of applicant's invention would have been motivated to employ such a modification for tracking purposes.

17. Claims 1-6, 9, 11-14 and 16 are rejected under 35 U.S.C. 103(a) as being obvious over *Tosaki et al.* (WO 00/07182) as evidenced by U.S. Patent No. 6633534 B1 in view of *Bar-on et al* (WO/9938162).

As per claims 1-2 *Tosaki et al.* teach a disk (*Fig. 1B*) that comprises data area 5 (*first format data recording region*) and lead area 4 (*second format data recording region*).

Tosaki et al. teach CSS key area disposed in the lead area, which stores key information for deciphering the requisite information, which has been ciphered and recorded in the data area (*col.3 lines 28-62*). The requisite information is deciphered using the key information and reproduced (*col. 4 lines 3-6*).

Tosaki et al. teach CSS key area disposed in the lead area, which stores key information for deciphering the requisite information, which has been ciphered and recorded in the data area (*col.3 lines 28-62*). The requisite information is deciphered using the key information and reproduced (*col. 4 lines 3-6*).

This reads on “encrypted information in the data recording region in the first format and reproducing information by reading out the encrypted information recorded in the data recording region in the first format, and by decrypting the encrypted information using the encryption information which was reproduced from the encryption data recording region in the recording medium in the second format” and on “reproducing information by reading out the encrypted information recorded in the data recording region in the first format, and by decrypting the encrypted information using the encryption information which was reproduced from the encryption data recording region in the recording medium in the second format”.

The lead-in area comprises a prepit section (*col. 3 lines 1-2*) that stores key information (*col. 2 lines 48-50*). *Tosaki* discloses that the recording density (line

recording density, track density) is lower in the prepit section, in order to improve the quality of the signal at the prepit section.

This reads on “recording information in the data recording region in the first format, which differs from the second format in an identical kind of recording system as the encryption data recording region” and on “the first format and the second format differing from each other in at least one of recording density, error correcting system, and defect management system”.

18. *Tosaki et al.* do not teach that the encryption information is different for recording onto different disks.

Bar-on et al. disclose different encryption information for recording onto different disks (*Bar-on et al., Abstract*). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement different encryption information for recording onto different disks given the benefit of better copy protection, wherein compromising of one disk (with one content, for example) do not comprise other disks.

19. As per claim 3 it is inherent that recording regions are blank before information is recorded.

20. As per claim 16 *Tosaki et al.* teach that the lead area in addition to prepit section comprise a groove (*col. 3 lines 1-3*).

21. As per claim 11 *Tosaki et al.* teach *Tosaki et al.*'s invention is directed towards a write-once DVD (*Tosaki et al., Abstract*). However, it is old and well-known practice to use DVDs where information could be written multiple times. One of ordinary skill

in the art at the time of applicant's invention would have been motivated to employ such a DVD in order to add additional data into the DVD. Also, it is implicit that recording means for recording information on the recording medium should allow the recording only in the first format and not the second format as *Tosaki et al.* teach that the second format region holds information that prevent unauthorized copying (*Tosaki et al., Abstract*).

22. The limitations of claim 4-5 and 12-13 are implicit. Although music, movies and other data (data stored in the data region that is in the first format) come in various quality (e.g. various compression techniques are used to minimize space requirement) while the second format data that is used to decipher the first format data and as a result it must be in perfect reproduction quality.

23. As per claim 6 it is inherent that plurality of information pieces are recorded in a circumferential direction on a disk and it is old and well-known practice to use more than one piece of information for the encryption process for motivation of benefit of increased security.

24. As per claims 9 and 14 *Tosaki et al.*'s invention employs two different areas with data in different formats. Data in different formats modulate differently (because they were modulated differently at the recording time) and as a result when the DVD is read, the player or a computer that reads it must have two different systems to deal with the various formats.

25. Claims 7- 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Tosaki et al.* (WO 00/07182) in view of *Bar-on et al* (WO/9938162) and further in view of *Oshima et al.* (U.S. Patent No. 6343282).

Tosaki et al. teach recording the encryption data recording region as discussed above. *Tosaki et al.* do not teach recording identification information for identifying each recording medium in the encryption data recording region

26. *Oshima et al.* teach unique recording identification information for identifying each recording medium used in the encryption/decryption process (*Oshima et al.*, *Abstract*).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include identification information for identifying a recording medium in the encryption data recording region as taught by *Oshim et al* into *Tosaki et al.*'s invention. One of ordinary skill in the art at the time of applicant's invention would have been motivated to employ such a modification for tracking purposes.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Poltorak whose telephone number is (571) 272-3840. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m.

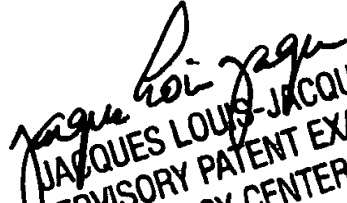
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis Jacques can be reached on (571)272-6962. The fax phone

number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


8/9/06


JACQUES LOUIS-JACQUES
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100